

**EXHIBIT 9**  
**Expert Report of**  
**Jesse David and**  
**Sushrut Jain**

IN THE UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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STEPHANIE WEDRA, individually on behalf ) Case No. 7:19-cv-03162  
of herself and on behalf of all others similarly )  
situated. )  
Plaintiff, )  
v. )  
CREE, INC., )  
Defendant. )  
\_\_\_\_\_  
)

**EXPERT REPORT OF JESSE DAVID AND SUSHRUT JAIN**

**I. QUALIFICATIONS**

**A. Dr. Jesse David**

1. I, Jesse David, am an economist and Partner at Edgeworth Economics, L.L.C. (“Edgeworth”). Edgeworth is a consulting firm that provides economic and financial analysis for complex litigation and public policy matters. Prior to founding Edgeworth with a group of economists in 2009, I was Senior Vice President at Criterion Economics and, before that, a Vice President at National Economics Research Associates, where, for approximately a dozen years, I performed economic analysis for a range of litigation, strategy, and public policy matters.

2. I hold a Bachelor’s degree in Physics and Economics from Brandeis University and a Ph.D. in Economics from Stanford University. Throughout my professional career, I have specialized in applied microeconomics and econometrics (the application of statistics to economic problems), as well as economic sub-fields related to regulation, antitrust, and intellectual property. My practice has focused on complex valuation matters, analysis of markets and regulations, and assessing damages in a variety of types of civil disputes, including those related to infringement of various forms of intellectual property—such as patents,

trademarks, and copyrights—as well as cases involving claims of false advertising. In some instances, my research has been incorporated in public speeches, published writings, and expert testimony. I have testified as an expert witness in deposition and at hearings or trials on more than 90 occasions. My curriculum vitae, which includes lists of my previous testimony, publications, and public presentations, is attached as Appendix 2.

### **B. Mr. Sushrut Jain**

3. I, Sushrut Jain, am an economist and Managing Principal of Edgeworth. Prior to joining Edgeworth in 2013, I was an Associate at Analysis Group, and before that, a Senior Consultant at Bates White, LLC, and a Consultant at National Economics Research Associates. In my over 20 years as a practicing economist, I have performed economic analysis in the areas of litigation, strategy, and public policy matters.

4. I hold a Bachelor’s degree in economics and mathematics from Ohio Wesleyan University and a Master’s degree in economics from Stanford University. In my professional career, I have specialized in the application of economic, financial, and econometric analyses in the context of litigation matters involving antitrust, intellectual property, class certification, employment, and false advertising issues. I have provided expert testimony on false advertising and labor and employment matters and supported the work of expert witnesses in more than 100 litigation-related matters. My work has covered a number of industries, including pharmaceuticals, consumer products, semiconductors, retail, media, and the financial services industry. My non-litigation experience includes providing complex financial consulting services for publicly traded companies. My curriculum vitae is attached as Appendix 3.

### **II. ASSIGNMENT**

5. Named Plaintiff in this action, Stephanie Wedra, has accused Defendant Cree, Inc. (“Cree”) of selling products with false and/or misleading information on the product packaging.<sup>1</sup> Plaintiff alleges that claims made on the labels of various types of Cree’s light-emitting diode (“LED”) lightbulbs (the “Accused Products”) “regarding the longevity of the LED Lightbulbs are false”<sup>2</sup> and that “the various lifetime savings estimations asserted by

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<sup>1</sup> Class Action Complaint, April 9, 2019 (“Complaint”).

<sup>2</sup> Complaint, ¶ 10.

Defendant in its advertising are illusory and incorrect.”<sup>3</sup> Plaintiff also alleges that claims made in Cree’s product labels indicating a “10-Year Warranty” and a “100% Satisfaction Guarantee” are false and/or misleading.<sup>4</sup> We refer to the label statements accused by Plaintiff collectively as the “Accused Claims.”

6. Plaintiff seeks to represent a class of consumers described as “[a]ll persons in New York who purchased the LED Lightbulbs during the applicable limitations period.”<sup>5</sup> Plaintiff alleges that “Plaintiff and the Class have been injured by paying a premium for Product that failed to live up to Defendant’s representations regarding its quality, characteristics, reliability, durability, and longevity.”<sup>6</sup> Plaintiff claims further that “Defendant’s advertising, packaging and labeling of the Products induced Plaintiff and the Class to buy the Products and to pay a premium price for them.”<sup>7</sup>

7. Plaintiff has filed an expert report on damages, prepared by Dr. Andreas Groehn.<sup>8</sup> In his report, Dr. Groehn describes a damages framework and proposes the use of a survey method to estimate harm to the proposed class of consumers who purchased the Accused Products. Dr. Groehn does not implement this survey or provide any empirical evidence of economic loss to consumers in this report.

8. We have been asked by counsel for Cree to review Plaintiff’s filings and other information in the record and to provide opinions regarding the damages methodology proposed by Dr. Groehn. This report is based on our education, professional training, and experience and our review and analysis of information produced in the course of this litigation as well as public information.<sup>9</sup> The materials reviewed by us and our staff and which we have considered in the preparation of our opinions are listed in Appendix 1 and include materials

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<sup>3</sup> Complaint, ¶ 37.

<sup>4</sup> Complaint, ¶ 36.

<sup>5</sup> Complaint, ¶ 45.

<sup>6</sup> Complaint, ¶ 63.

<sup>7</sup> Complaint, ¶ 64.

<sup>8</sup> Report of Dr. Andreas Groehn, February 26, 2021 (“Groehn Report”).

<sup>9</sup> We also conducted an interview of Scott Schwab, Cree’s former Vice President and General Manager, Lamps.

produced in a similar litigation in California.<sup>10</sup> We reserve the right to revise our opinions if additional information is provided to us—including but not limited to any expert reports, deposition testimony and exhibits, pretrial briefs, trial testimony, etc.—or if additional research, reflection, or the correction of inadvertent errors leads me to change my opinion. We may rely on visual aids and demonstrative exhibits that demonstrate the bases of our opinions. We have not yet prepared any exhibits for use at trial as a summary or support for opinions expressed in this report, but we expect to do so in accordance with the Court’s scheduling orders.

9. Edgeworth’s fees for professional services are based on hourly billing rates. Dr. David’s time is currently billed at \$625 per hour and Mr. Jain’s time is currently billed at \$375 per hour. Edgeworth’s compensation does not depend on the outcome of this case.

### **III. BACKGROUND**

#### **A. Cree**

10. Cree is a public company, headquartered in North Carolina, which manufactures and distributes various materials products, power and radio-frequency devices, and specialty lighting-class LED products.<sup>11</sup> Cree’s website currently lists several dozen models of LED lightbulbs, which differ by wattage, size and shape, light type (e.g., “soft white”), and other features.<sup>12</sup> Cree introduced these products in March 2013.<sup>13</sup> Cree’s primary (and formerly exclusive) retail outlet in the U.S. is The Home Depot.<sup>14</sup>

11. LED lightbulbs are lightbulbs powered by an LED chip. Cree’s lightbulbs are designed to reduce energy consumption and last longer than traditional incandescent lightbulbs, and to offer similar light characteristics and fit appliances designed for traditional bulbs.<sup>15</sup> Figure 1 shows a version of the label from a package for one of Cree’s LED lightbulbs as of 2013.

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<sup>10</sup> Dr. David submitted a report in the matter of *Jeff Young v. Cree Inc.* filed in the Northern District of California.

<sup>11</sup> Cree 2018 10-K, p. 5.

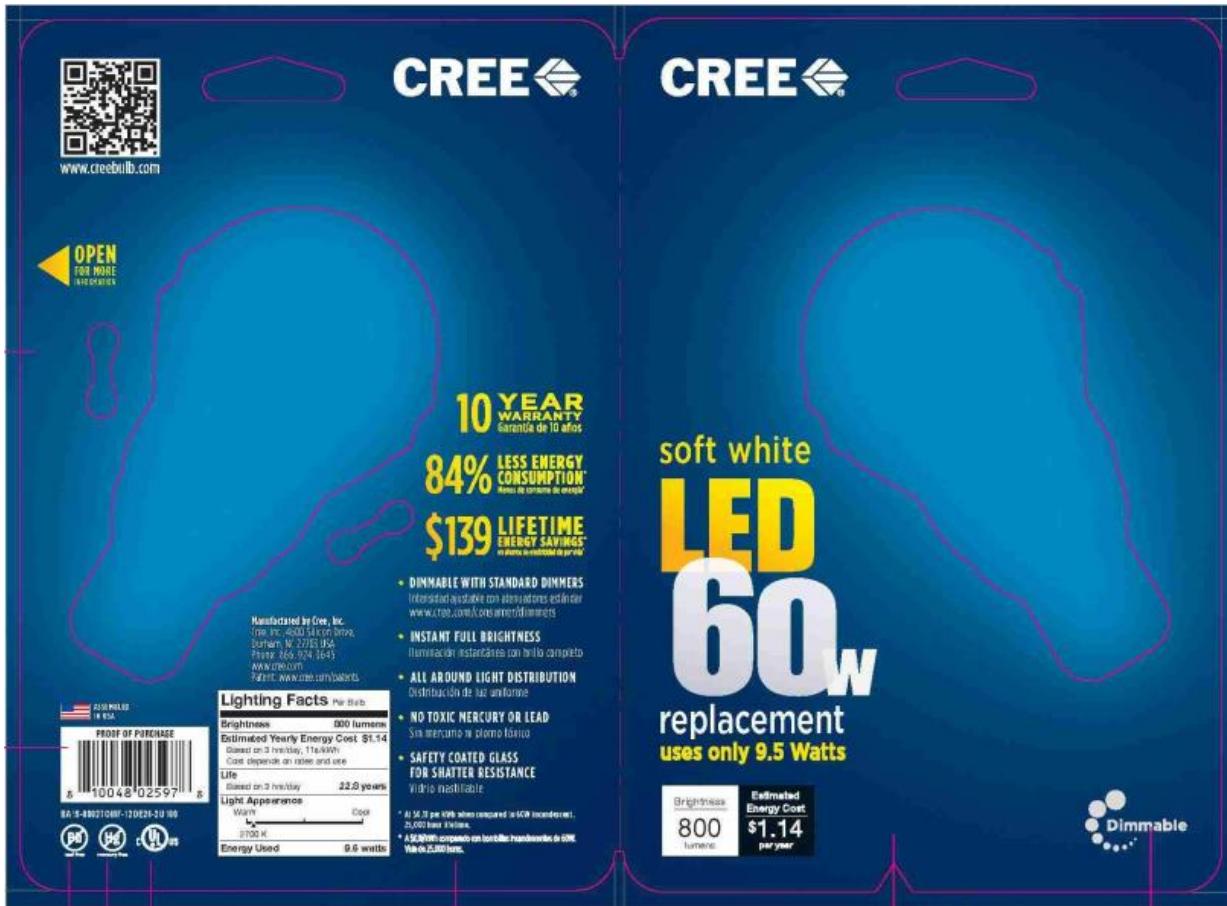
<sup>12</sup> Cree website, [creebulb.com](http://creebulb.com).

<sup>13</sup> Deposition of Scott Schwab, January 4, 2019 in *Jeff Young v. Cree Inc.* (“Schwab Deposition”), p. 13.

<sup>14</sup> Schwab Deposition, pp. 26-27.

<sup>15</sup> Cree website, [creebulb.com/products](http://creebulb.com/products) and [creebulb.com/40-watt-replacement-soft-white](http://creebulb.com/40-watt-replacement-soft-white).

**Figure 1**  
**CREE LED Lightbulb Label, 60-Watt Replacement, June 2013**



Source: CREE\_00064720.

12. As seen in Figure 1, Cree includes on the package label a variety of descriptions and claims related to the performance of the products. The label includes information in the “Lighting Facts” box on the product’s brightness, estimated yearly energy cost, light appearance, energy used, and expected life. This information is also reiterated on the package outside the Lighting Facts box. Also on the label are comparisons of the product to the performance of other products, for example, the claim shown in Figure 1 of “84% less energy consumption...At \$0.11 per kWh when compared to 60W incandescent.” The label also includes claims related to Cree’s warranty, for example, the claim of “10 year warranty.” The label shown in Figure 1 also includes a claim about the savings over the lifetime of the product.

## **B. Plaintiff's Allegations**

13. Plaintiff claims to have purchased 60W and 75W Cree lightbulbs “during the class period.”<sup>16</sup> She further alleges that the lightbulbs “burned out within 6 months” of her purchase.<sup>17</sup>

14. Plaintiff alleges that “Cree’s claims regarding the longevity of the LED lightbulbs are false,” and that “[had] Defendant not made the false, misleading, and deceptive representations and omissions, Plaintiff and the Class would not have been willing to purchase the Products or they would have paid less for them.”<sup>18</sup> Plaintiff further alleges that based on the Accused Claims Cree was “able to, and did, charge a premium price for the Products over the cost of competitive products.”<sup>19</sup>

## **C. The Groehn Report**

15. In his report, Dr. Groehn describes his understanding of the Accused Claims as statements on Cree’s product packaging relating to the lifetime of the lightbulbs, which he terms the “Longevity Representation”; and the guarantee offered to customers, which he terms the “Guarantee Representation.”<sup>20</sup>

16. Dr. Groehn states that his “goal at the class certification stage will be to determine whether Plaintiffs and the proposed class members suffered any injury and, if so, to present a damages model showing that their damages can be measured on a class-wide basis.”<sup>21</sup> Dr. Groehn then provides the following opinions relating to the alleged damages:

- He proposes a theoretical “economic framework” to estimate class-wide damages based on the difference between consumer demand for the Accused Products as actually sold relative to consumer demand for the same products if “purchasers of the Products would

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<sup>16</sup> Complaint, ¶ 41.

<sup>17</sup> Complaint, ¶ 42.

<sup>18</sup> Complaint, ¶ 11.

<sup>19</sup> Complaint, ¶ 12.

<sup>20</sup> Groehn Report, ¶ 18.

<sup>21</sup> Groehn Report, ¶ 9.

have been informed of the true average lifetime at the point and time of the purchase.”<sup>22</sup> He proposes a notion of the “but-for” world based on an opinion that, in order to be made whole, “all purchasers who had purchased in the actual world also need to purchase in the but-for world.”<sup>23</sup> He deems as irrelevant the market equilibrium in the “but-for” world claiming that “supply in the but-for world does not need to be considered in my damage analysis.”<sup>24</sup> Notably, Dr. Groehn’s framework does not call for an estimation of the but-for market price of the Accused Products—*i.e.*, what the true market price would have been but-for Defendant’s alleged misrepresentations.

- Dr. Groehn provides a general discussion of a few market- and survey-based methods that he claims could be used to estimate consumer preferences before opining that conjoint analysis is the “most fitting approach for this case.”<sup>25</sup> He describes how he would employ a conjoint survey in the current matter and use its results to calculate “economic loss,” which he claims he can estimate “by comparing the demand for a product with the advertised attribute to the demand without the advertised attribute.”<sup>26</sup> Dr. Groehn does not actually perform a survey or even a pre-test for purposes of his report and thus provides no empirical results that could be used to “determine whether Plaintiffs and the proposed class members suffered any injury,” his previously stated “goal at the class certification stage.”

#### **IV. DAMAGES FRAMEWORK**

17. We understand that, in order for a class to be certified, the plaintiff must present a method for computing damages for each member of the putative class that relies on common, as opposed to individualized, evidence. We further understand that, at the class-certification stage, the plaintiff must provide a reliable damages model that specifically measures only the damages attributable to the plaintiff’s particular theory of liability.

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<sup>22</sup> Groehn Report, ¶ 26.

<sup>23</sup> Groehn Report, ¶ 30.

<sup>24</sup> Groehn Report, ¶ 36.

<sup>25</sup> Groehn Report, ¶ 49.

<sup>26</sup> Groehn Report, ¶ 72.

18. We understand that a consumer’s damages due to misrepresentations by a seller of a product are equal to the difference between the consumer’s actual financial circumstances and her financial circumstances in a hypothetical scenario in which the misrepresentations did not occur (the “but-for” world)—*i.e.*, a hypothetical scenario in which the seller changes the descriptions of the product to be true and non-misleading.<sup>27</sup> These damages also can be described as the difference between the price paid by the consumer and the actual value received. This approach satisfies the notion of a “make-whole” damages award by placing the consumer in the financial position she would have held had the allegedly wrongful conduct not occurred.

19. In some cases, the actual prices paid by consumers may be observable from receipts, point-of-sale records, or other sources. Depending on the circumstances, however, such records may not exist or may be difficult to obtain. Moreover, the prices paid may depend on individual circumstances, such as the channel of purchase (online, grocery store, mass merchandiser, etc.), or whether the product was on sale or was purchased with a coupon. Thus, it may not be possible to observe actual prices using common evidence.

20. Nevertheless, assuming that price information is available, the next question becomes: What is the actual value of the product purchased? The only economically objective measure of “value” in this context is market value—*i.e.*, the price that would have prevailed in the marketplace had the defendant not made the misrepresentations at issue, or the “but-for” price. Thus, in a class action related to marketing claims, if the alleged misrepresentations caused retail prices to be higher than what they otherwise would have been, then damages for a particular class member who would continue to purchase the product in the “but-for” world would equal the difference between the price she actually paid for the product and the price that would have prevailed in the “but-for” world, given the seller’s alternative pricing and labeling strategy in that scenario. This difference can be described as a price premium resulting from the alleged misrepresentations.

21. Moreover, it is possible that the alleged misrepresentations, in addition to potentially raising the market price, also caused some consumers to purchase the product who otherwise

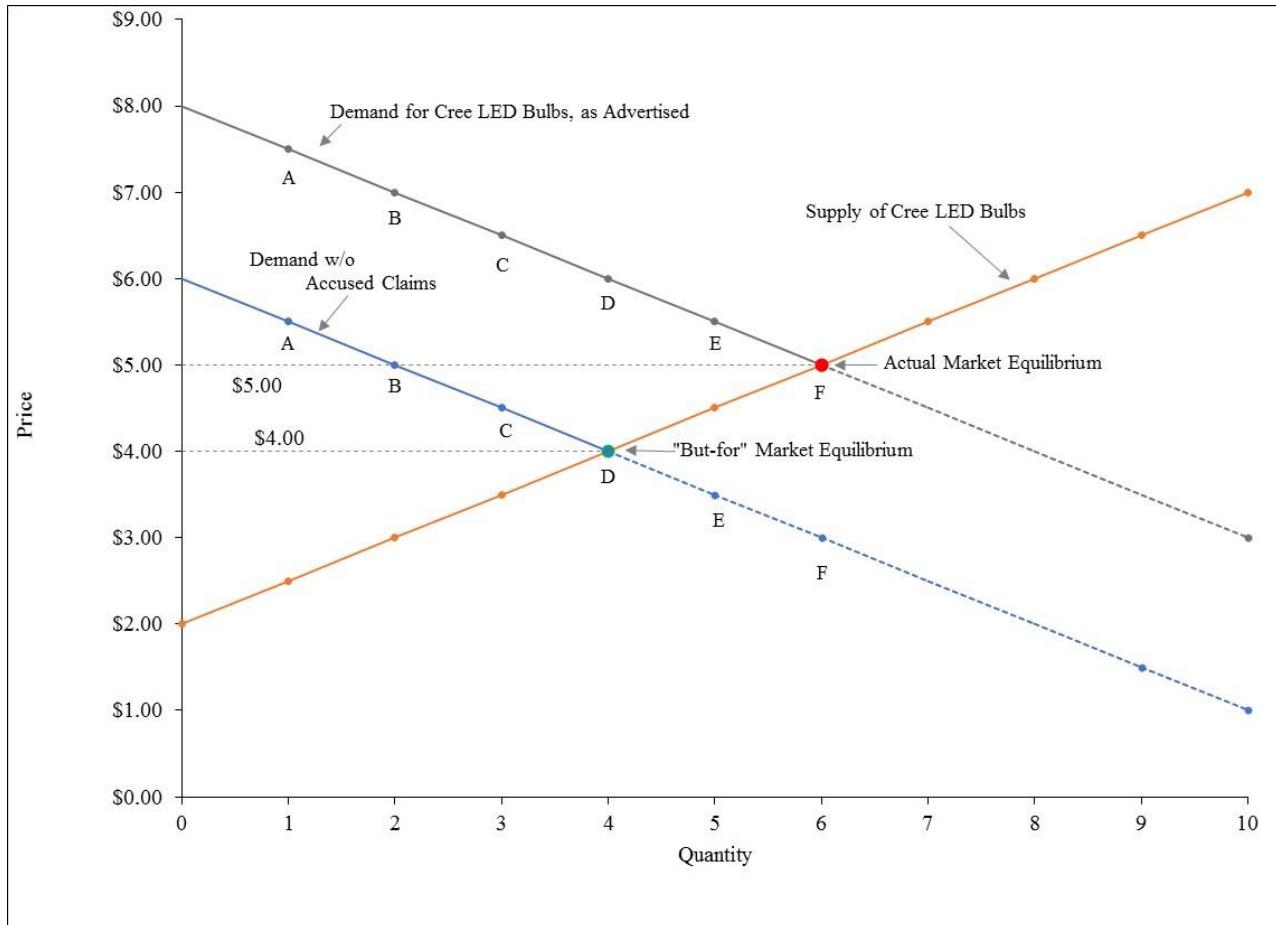
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<sup>27</sup> See, for example, Federal Judicial Center, Reference Manual on Scientific Evidence, 3<sup>rd</sup> ed., Washington, D.C.: National Academies Press, 2011, pp. 432-443.

would not have done so. In such a scenario, in the but-for world, both prices and quantities would have been lower than in the actual world, and there would be two distinct groups of consumers: 1) those who would have purchased the product at the “but-for” price absent alleged misrepresentations; and 2) those who would have purchased some other product or no product in the “but-for” world. Consumers in the latter group may have experienced damages, which would be related to the costs and benefits of their alternative choices compared to their actual purchases. Measuring such damages would require inquiries into the availability, characteristics, and prices of other potential choices as well as those consumers’ preferences.

22. Figure 2 shows a stylized example of this scenario with quantity of Cree lightbulbs on the horizontal axis and price per lightbulb on the vertical. The grey line represents consumer demand, which is constructed by aggregating consumers’ willingness to pay (“WTP”) for the product, and intersects with the orange line, which represents supply, at a point known as the “market equilibrium.” A supply curve is assumed to slope upward when marginal costs increase with quantity supplied due to the law of diminishing returns. In this example, at equilibrium, quantity sold equals six units and price equals \$5 per unit. For clarity, we assume that each of six consumers (labeled A-F) purchase a single unit at the equilibrium price of \$5. The figure also shows consumer demand in a hypothetical scenario in which the alleged misrepresentations are removed from the product labels (the blue line). In this example, we assume that when the product is sold without the alleged misrepresentations, there is a downward shift in consumer demand, with consumers demanding lower aggregate quantities at each price level. The market finds equilibrium at this lower level of demand—the but-for market equilibrium—at a quantity equal to four units and a price equal to \$4. In the but-for world, only four consumers (A, B, C, D) would continue to purchase the product. We can determine the harm to these four consumers by subtracting the price they would have paid but-for the alleged misrepresentations (\$4) from the price they actually paid (\$5). The difference, \$1, is a measure of the price premium caused by the misrepresentation.

**Figure 2**  
**Stylized Example of the Impact of the**  
**Alleged Misrepresentations on Marketplace Outcomes**



23. Damages for the other two consumers (E, F) are not clear in this scenario, since their WTP for the product in the “but-for” world is less than the market price of \$4, and therefore they would not have purchased it. Those consumers’ damages would depend on their actions in the “but-for” world, which in turn would depend on their preferences and the alternatives available to them. Suppose in the “but-for” world Consumer E would choose instead to buy a competing lightbulb product. That consumer’s damages would depend on the different features and prices of the accused product relative to the alternative product, but certainly could be no

more than the difference between the actual market price and that consumer's willingness to pay for the product without the alleged misrepresentations (\$1.50 in this example).<sup>28</sup>

24. Depending on the seller's business strategy and cost structure, it is possible that the company might continue to sell the product at the same price in the but-for world as in the actual world.<sup>29</sup> In such a scenario, while some consumers may not have purchased the product absent the alleged misrepresentations, those who would continue to do so would pay the same price as they did in the actual world. Again, this scenario would require a different damages approach for different consumers, depending on whether their purchasing behavior would have been different in the "but-for" world relative to the actual world. Figure 3 shows this scenario with supply represented by the horizontal orange line. In the world but-for the alleged misrepresentations, only consumers A and B would purchase the product. We can determine that these two consumers were not harmed because they pay the same price (\$5) for the product in the scenarios with and without the alleged misrepresentations.

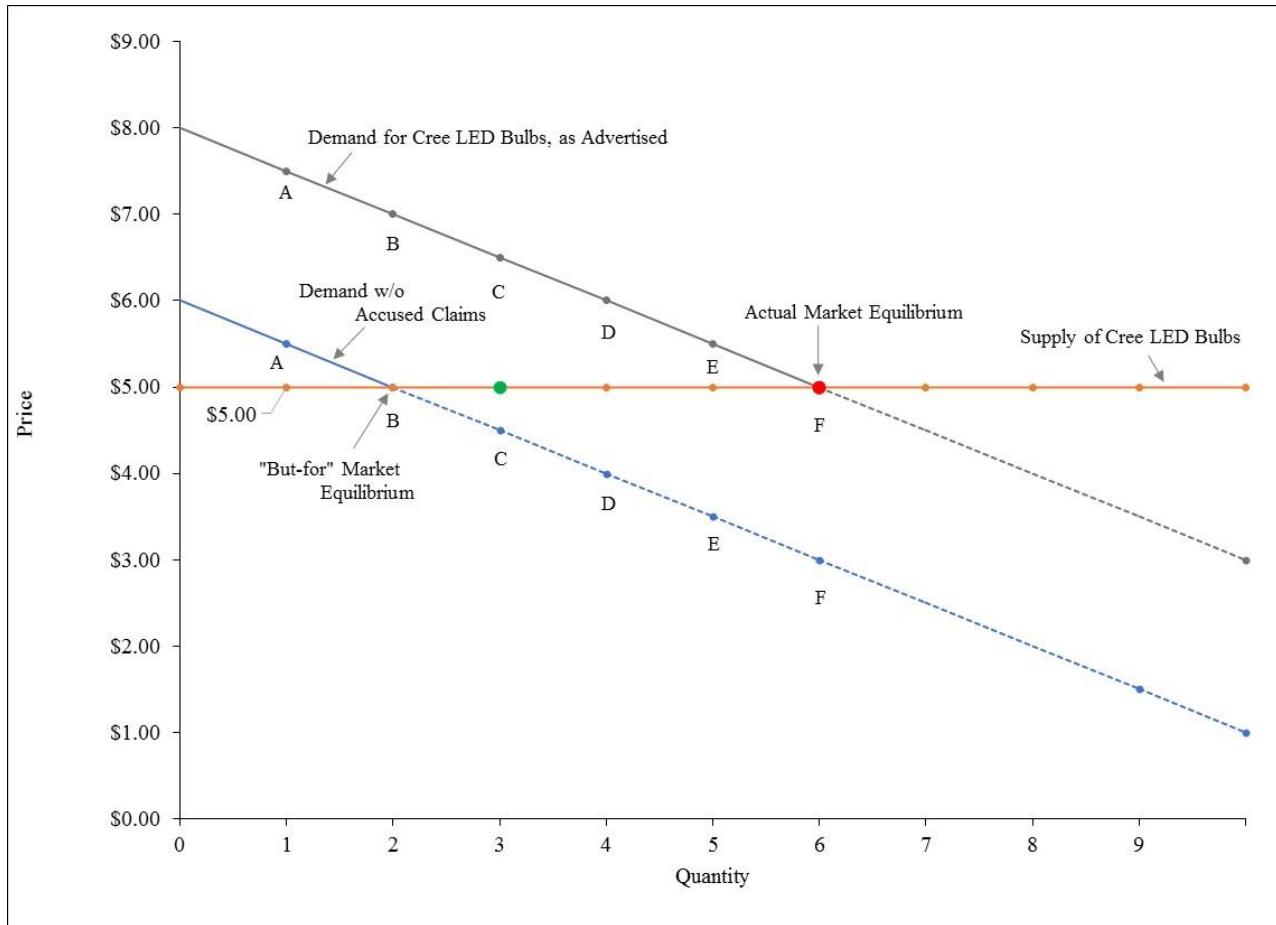
25. Damages for the other four consumers (C, D, E, F) are not clear, since their WTP is below the but-for market price and they would not have purchased the product in the but-for scenario. These consumers' damages would depend on their actions in the but-for world. In the case of consumer C, for example, her damages could certainly be no more than \$0.50, the difference between the actual market price (\$5) and her willingness to pay for the product without the alleged misrepresentations (\$4.50 in this example).

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<sup>28</sup> This amount is the difference between the actual market price (\$5.00) and the price at which Consumer E would be willing to purchase the product without the alleged misrepresentations (\$3.50), the point for consumer E on the blue demand line.

<sup>29</sup> In his deposition, Dr. Groehn admits that it is possible that a manufacturer might continue to sell a product at the same price, even after changing its representations about the product. [Deposition of Dr. Andreas Groehn, April 9, 2021 ("Groehn Deposition"), p. 96]

**Figure 3**  
**Stylized Example of the Impact of the Alleged Misrepresentations**  
**on Marketplace Outcomes, with a Horizontal Supply Curve**



26. In addition to the general economic principles illustrated here, these examples also demonstrate that the supply curve, which represents the supplier's actions in response to market conditions, may influence the extent of harm to consumers as well the number of consumers harmed by the alleged misrepresentations.

27. In summary, calculating class-wide damages in a matter involving claims of misrepresentations on a product package requires a determination of the market price and quantity of the product if sold with only true and non-misleading claims on the package. That assessment requires an evaluation of both supply- and demand-side considerations, including: 1) the alternative labeling strategy of the seller; 2) the pricing strategy of the seller given the alternative label; 3) the reactions of competitors to those changes; and 4) consumers' responses to those strategies.

**V. DR. GROEHN'S DAMAGES FRAMEWORK IS BASED ON A MISLEADING FORMULATION OF THE BUT-FOR SCENARIO AND IS BIASED TO OVERSTATE DAMAGES**

28. As discussed above, the only economically objective measure of harm to a consumer is the difference between the actual price paid by the consumer and the but-for price, or the price that consumer would have paid had the defendant not made the misrepresentations at issue. Plaintiff refers to this difference in the Complaint, asserting that Defendant's alleged misrepresentations allowed it to "charge a premium for the Products over what it would have been able to charge had it not misled Plaintiff and the Class."<sup>30</sup> As seen in Figure 2 and Figure 3, above, the but-for price, similar to the actual price, is a consequence of market equilibrium that results from the interaction of both supply and demand. To determine the price premium, the economist must necessarily estimate the but-for price that results from this interaction of supply and demand in a properly defined but-for world.

29. Plaintiff states, in support of her motion for class certification, that "Dr. Groehn will use a conjoint analysis to measure the price premium associated with Cree's misleading representations."<sup>31</sup> Dr. Groehn, however, does not propose to measure any premium in price paid by members of the proposed class. His approach does not, and indeed cannot, identify whether prices for the Accused Products would have been lower in the "but-for" world, nor can it measure the amount of any such reduction. Dr. Groehn's proposed approach therefore fails to determine whether all (or any) members of the putative class suffered an "economic loss" and further would not measure such loss for anyone.

**A. Dr. Groehn Invents a But-for World Not Grounded in Economic Reality**

30. Instead of defining a damages framework that would enable him to measure the true "but-for" price—*i.e.*, the price that would have prevailed in a world in which Cree removed the Accused Claims from the package—Dr. Groehn invents a new concept of the "but-for" world. He claims that "[t]o be made whole, all purchasers who had purchased in the actual world also need to purchase in the but-for world."<sup>32</sup> Dr. Groehn provides no basis, in economics or in the law, for this assertion, and we are not aware of any. In fact, to be made whole, consumers must

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<sup>30</sup> Complaint, ¶ 43.

<sup>31</sup> Memorandum of Law in Support of Plaintiff's Motion for Class Certification, February 26, 2021, p. 7.

<sup>32</sup> Groehn Report, ¶ 30.

be restored to the financial position they would have been in but for the alleged misrepresentations, and that requires the damages expert to determine what the but-for world would have looked like, both in terms of price and quantity sold.

31. As discussed in the previous section, quantity sold in the but-for world is strictly a consequence of the market forces of supply and demand. Dr. Groehn does not appear to directly contradict this fundamental economic principle—he does not claim that all purchasers who had purchased in the actual world *would* indeed have purchased in the but-for world in this or any other case. Instead, he sidesteps economic principles by claiming that the way to make all purchasers whole is to *require* that they would all have purchased the product in the but-for world.

32. In creating this requirement, Dr. Groehn contradicts not just economic theory and common sense, but even his own statements. In his report, Dr. Groehn provides the following quote from a reference guide on damages estimation: “Because the but-for scenario differs from what actually happened only with respect to the harmful act, damages measured in this way isolate the loss of value caused by the harmful act and exclude any change in the plaintiff’s value arising from other sources.”<sup>33</sup> If the only difference between the actual world and the but-for world is the harmful act, then the economist must determine how the absence of the harmful act would affect both prices and quantities through the impact on supply and demand. There is nothing in the book he cites, or in any text or treatise that we are aware of, that requires one to arbitrarily fix quantity sold in the but-for world at the level of quantity sold in the actual world.<sup>34</sup>

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<sup>33</sup> Groehn Report, ¶ 25, citing Federal Judicial Center, Reference Manual on Scientific Evidence, 3<sup>rd</sup> ed., Washington, D.C.: National Academies Press, 2011, p. 432.

<sup>34</sup> When asked in his deposition to provide the basis for the requirement in his framework that but-for units sold be held equal to actual units sold—regardless of what would actually happen in the market—Dr. Groehn again cites the chapter in the Reference Manual, “court decisions” that he believes to be “under review,” and the concept in economics known as a “Pigou subsidy” or a “Pigou tax.” [Groehn Deposition, pp. 93-96] It must be noted that the concept of a Pigouvian subsidy/tax relates to government subsidies or taxes to account for negative and positive externalities, such as the societal benefits of a flu shot or the societal costs of pollution, and has nothing to do with the economics of making a harmed consumer whole in the context of litigation. The Pigouvian subsidy concept bears no relationship to Dr. Groehn’s artificial requirement that quantity sold in the but-for world be forced to equal actual quantity sold, regardless of the true but-for market outcomes.

33. Even Plaintiff states: “Were it not for the marketing representations made by Defendant that she relied upon, Plaintiff would not have bought the LED Lightbulbs, or would not have paid a premium price for them.”<sup>35</sup> To the extent this assertion is true for other members of the proposed class, and some of them also would not have bought the Accused Products but for the alleged misrepresentations, quantity in the but-for world certainly would have been lower than quantity sold in the actual world. Dr. Groehn purposefully avoids this reality, and his proposed damages method cannot account for it.

34. The main consequence of Dr. Groehn’s invented but-for world is that it allows him to completely ignore the supply side of the market. He decides that the appropriate compensation—for all purchasers—is equal to “the difference in willingness-to-pay for the marginal consumer in the actual and but-for world.”<sup>36</sup> To better understand this, see Figure 4, where we take the example from Figure 2, above, and incorporate Dr. Groehn’s economic framework, as illustrated in his report.<sup>37</sup>

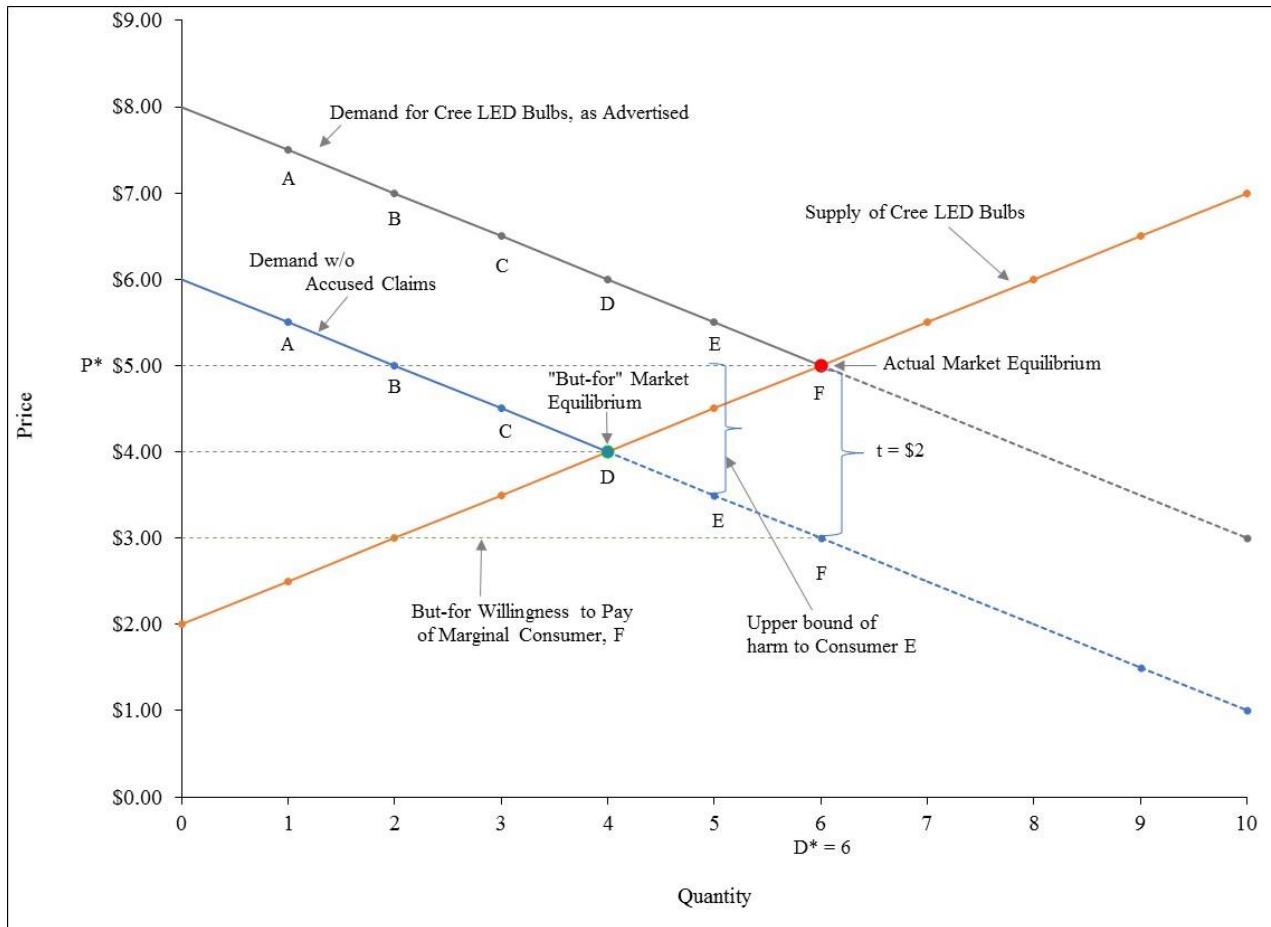
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<sup>35</sup> Complaint, ¶ 42.

<sup>36</sup> Groehn Report, ¶ 32.

<sup>37</sup> In Figure 6 in the Groehn Report,  $D^*$  and  $P^*$  represent equilibrium quantity and price in the actual world. Setting them to Figure 2 from this report,  $D^* = 6$  units,  $P^* = \$5$ , and the but-for willingness to pay of the marginal consumer (consumer F) = \$4.

**Figure 4**  
**Combination of Figure 2, Above, with Dr. Groehn's Figure 6**



35. Dr. Groehn attempts to justify his measure of compensation,  $t$ , by saying that it is “equivalent to the difference between the market price in the actual world and the price required to generate the same volume as in the actual world.”<sup>38</sup> This is a nonsensical statement because quantity in the but-for world is not something that can simply be “generated” artificially. Both volume and price in the but-for world would be determined by the economic interaction of supply and demand. Dr. Groehn appears to think that he can “generate” quantities by moving up and down the but-for demand curve without accounting for supply at all. In fact, he goes on to say:<sup>39</sup>

The shape of the supply curve, or the intersection of the supply and demand curve, and hence the market equilibrium in the but-for world, are irrelevant to determining

<sup>38</sup> Groehn Report, ¶ 32.

<sup>39</sup> Groehn Report, ¶ 32.

the compensation required to shift the but-for demand vertically so that it intersects with the supply curve in the actual market equilibrium.

It is true that if you ignore the supply side of a market entirely, as he does, then it does become irrelevant to the exercise, but Dr. Groehn's exercise in the first place—shifting the but-for demand curve vertically—has nothing to do with determining harm to consumers. The shape of the supply curve and market equilibrium in the but-for world are certainly not irrelevant to determining what the price would have been but-for the alleged misrepresentations, the critical step in determining harm to consumers.

36. In his report, Dr. Groehn states that, in order to calculate damages,<sup>40</sup>

[W]e need to understand demand and supply for the product under consideration in the actual world, in which consumers relied on Defendant's representations that overstated the lifetime of its Products and the associated savings, and in the hypothetical but-for world, in which the purchasers of the Products would have been informed of the true average lifetime at the point and time of the purchase.

However, any assertions by Dr. Groehn that he has, in fact, considered supply in his estimation of damages are belied by Figure 6 in his report, the illustration of his damages framework, wherein he does not even show a supply curve. Dr. Groehn admits that his damages analysis does not consider supply and that this is a departure from damages analyses in other types of litigation.<sup>41</sup>

37. Consideration of the supplier's strategy and supply conditions is critical to determining what the but-for market equilibrium would have looked like in terms of prices and quantities. As seen above, whether quantity supplied is an increasing function of price (Figure 2) or the supply curve is flat (Figure 3) has a substantial effect on the extent to which consumers were harmed and whether there were consumers who were not harmed at all. Dr. Groehn's decision to ignore the supply side of the market is an irremediable flaw in his damages approach, rendering it irrelevant to determining actual harm to consumers.

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<sup>40</sup> Groehn Report, ¶ 26.

<sup>41</sup> Groehn Report, ¶ 36.

### **B. Dr. Groehn's Damages Framework Is Biased to Overstate Harm to Consumers**

38. Ignoring the supply side of the market enables Dr. Groehn to create a measure of compensation that, by design, would overcompensate nearly all, if not all, purchasers of the Accused Products. As seen in Figure 4, above, Dr. Groehn's measure of compensation,  $t$ , is the “difference in willingness-to-pay of the marginal consumer in the actual and the but-for world.”<sup>42</sup> As shown in Figure 4, in the actual world, the willingness to pay of the marginal consumer (consumer F) equals the actual price of \$5. In the but-for world, the marginal consumer's WTP equals \$3 (on the blue line). By Dr. Groehn's method, the difference of \$2 is the appropriate compensation for all consumers, not just the marginal consumer, F.

39. This is problematic for multiple reasons. First, Dr. Groehn does not claim that the marginal consumer in the but-for world would have paid a but-for price equal to \$3, because he does not measure the but-for market price at all. But Dr. Groehn's method also necessarily overcompensates all other consumers. Take for example, consumer E in Figure 4, who has a higher but-for WTP than the marginal consumer—in this case equal to \$3.50 on the blue line. Consumer E—and every other consumer besides the marginal consumer—would have been willing to pay more than \$3 for the Accused Products but-for the alleged misrepresentations. Since every consumer *actually paid* \$5 for the Accused Products, the harm to all these consumers would be less than that \$2 difference that Dr. Groehn's method would assign to them. By failing to account for the fact that the measure of harm to a consumer must be based on the difference between what they actually paid and what they would have paid but-for the alleged misconduct, Dr. Groehn's method is inherently biased to overstate harm to essentially all consumers.

## **VI. DR. GROEHN FAILS TO PROVIDE ACTUAL EVIDENCE OF INJURY TO PROPOSED CLASS MEMBERS**

### **A. Dr. Groehn Fails to Provide Any Empirical Evidence of Injury**

40. Dr. Groehn states that his “goal at the class certification stage will be to determine whether Plaintiffs and the proposed class members suffered any injury and, if so, to present a

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<sup>42</sup> Groehn Report, ¶32.

damages model showing that their damages can be measured on a class-wide basis.”<sup>43</sup> While Dr. Groehn discusses, in the abstract, a few proposed methods, including market-based methods and survey-based methods, he does not actually perform these methods or provide any empirical evidence of injury to proposed class members in his report. Consequently, he fails to achieve the goal he lays out for his report at the class certification stage.

### **B. Dr. Groehn Ignores Market-Based Methodologies**

41. Dr. Groehn states that the valuation methodologies he considers can be grouped into “market-based” methodologies, which according to him capture consumers’ “revealed preferences,” and “survey-based” methodologies, which purportedly capture “stated preferences.”<sup>44</sup> In his discussion of market-based methods, he briefly describes a hedonic pricing approach as “an approach that builds on market data.”<sup>45</sup>

42. Hedonic analysis is based on the idea that a consumer good is made up of multiple underlying attributes each affecting the consumer’s utility and market pricing separately. Hedonic pricing methods can be used to measure the component of market price attributable to a particular feature, based on data related to actual purchasing behavior. In contrast, survey methods in isolation, which rely solely on asking consumers what they would do in hypothetical situations, generally cannot do so. Dr. Groehn states that the hedonic method requires information on the attributes, prices paid by consumers, and quantities sold. He concludes that “the Hedonic Pricing Approach could be applied in this case.”<sup>46</sup>

43. However, later in his discussion, Dr. Groehn concludes that “[g]iven the downsides and inapplicability discussed above with market-based approaches (including the Hedonic Pricing Approach) and Contingent Valuation, Conjoint Analysis is ideally suited to assess how consumers value the longevity claims at issue in this case.”<sup>47</sup> Dr. Groehn does not explain what

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<sup>43</sup> Groehn Report, ¶ 9.

<sup>44</sup> Groehn Report, ¶ 38, Figure 8.

<sup>45</sup> Groehn Report, ¶ 39.

<sup>46</sup> Groehn Report, ¶ 42.

<sup>47</sup> Groehn Report, ¶ 49.

he means by “the downsides and inapplicability” of the hedonic approach, which he earlier claimed could be applied in this case.

### **C. Dr. Groehn’s “Economic Loss” Does Not Measure Harm to Consumers**

44. Dr. Groehn claims that his conjoint survey method would enable him to estimate economic loss per unit “by comparing the demand for a product with the advertised attribute to the demand without the advertised attribute, either in absolute value or as a percentage of the respective purchase price.”<sup>48</sup> However, what Dr. Groehn refers to as the “economic loss per unit” is actually just an estimation of the average stated consumer willingness to pay for the attribute related to the alleged misrepresentations. This is not the correct measure of economic harm to consumers for two reasons. First, it may be an inaccurate measure even of consumer demand because it relies on stated preferences and not on actual consumer purchasing behavior. But more importantly, Dr. Groehn’s “economic loss” only measures average consumer willingness to pay for the allegedly falsely advertised attribute. It does not measure but-for market outcomes because it fails to account for supplier behavior. If supplier behavior were akin to the illustration in Figure 3, above, where the supply curve is horizontal, consumer willingness to pay has no bearing on damages because those consumers who would have bought Cree lightbulbs with the alleged misrepresentations removed would have paid the same price as they actually did. Dr. Groehn’s approach focuses only on demand, ignoring supply entirely, making his estimate of economic loss divorced from any real-world marketplace.

## **VII. A CONJOINT SURVEY ALONE, AS PROPOSED BY DR. GROEHN, CANNOT PROVIDE AN OBJECTIVE MEASURE OF DAMAGES**

45. At the outset of his discussion of the proposed empirical analysis, Dr. Groehn states that the purpose of the valuation methodology he chooses will be to “elicit consumer preferences and to estimate willingness-to-pay.”<sup>49</sup> Dr. Groehn provides a brief general discussion of market-based methods and another survey method before deciding that a conjoint survey method would be the “most fitting approach” for his damages framework. As discussed in the previous section, a methodology that only evaluates consumer preferences, while ignoring the

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<sup>48</sup> Groehn Report, ¶ 72.

<sup>49</sup> Groehn Report, ¶¶ 37-38.

supply side of the market, cannot be used to determine what prices would have been but-for the alleged misrepresentations and, consequently, cannot provide an objective measure of harm to consumers.

46. Dr. Groehn does not propose any analysis that could be used to predict market prices in a scenario with the Accused Claims removed from the product labels, nor does he compare the actual prices of the Accused Products to the prices of any other products available in the marketplace. Instead, he proposes to measure damages through an assessment of consumers' personal valuations of the Accused Claims using a survey.

47. This proposed approach is problematic for multiple reasons. First, consumers' personal valuations for a product or a product feature are clearly individualized. In the present case, for example, some consumers of the Accused Products may value the longevity feature as described in the Accused Claims very highly, while others may not care for that feature at all, instead placing value on other aspects of the product. Dr. Groehn's proposed approach for his conjoint survey would calculate damages based on the collective preferences of all the survey respondents; but such an approach simply would mask the variation across the valuations of individuals.

48. The broader problem with Dr. Groehn's proposed approach is that a conjoint survey—indeed, consumer surveys generally—cannot provide sufficient information to predict what prices would have prevailed in the actual marketplace but for the alleged misrepresentations. Such approaches therefore cannot provide economically objective estimates of injury. Determining “but-for” prices requires an analysis of how the entire market would have evolved in a scenario without the alleged misrepresentations, including the behavior of sellers as well as consumers. Market prices are determined by an intersection of supply and demand; that is, the equilibrium that results when consumers' willingness to pay for a product (demand) interacts with the manufacturer's willingness to sell the product (supply). A consumer survey, such as that proposed by Dr. Groehn, may provide an estimate of consumers' willingness to pay for a hypothetical product described in one particular way relative to their willingness to pay for a similar hypothetical product with another description. In other words, a properly designed and implemented consumer survey may provide an estimate of how the “demand side” of the market would react to the correction of the alleged misrepresentations. Such a survey, however,

provides no evidence of how the seller of the product or its competitors would react in such an environment. Specifically, consumer surveys cannot address the manufacturer's pricing strategy when changing the representations on the package or competitors' responses to the change in representation.<sup>50</sup> These factors are critical in the determination of any real-world price premium associated with a label change, since a change in consumer demand alone may not result in any change in the price of the product.

49. Competition between suppliers is another factor that may lead to a divergence between consumers' willingness to pay for a feature and the price premium associated with that feature in the real-world marketplace. For example, consumers might be willing to pay hundreds or even thousands of dollars more for a car with an air conditioner relative to an identical vehicle with no air conditioner. However, if the market for cars is competitive, then competition between the multiple manufacturers will drive down the price premium associated with the presence of the air conditioner to reflect the cost of adding it to the vehicle, an amount which may be completely disconnected from, and likely lower than, consumers' average willingness to pay for that feature. Thus, data from the actual marketplace may indicate a much smaller price premium for a product feature than any measure of consumers' willingness to pay for that feature obtained from a survey.

50. For these reasons, a measurement of a positive, average consumer value associated with a label statement provides no evidence to support a claim that removing the statement would result in a commensurately lower price for the product, or even that it would be lower at all. Nor does a measurement of consumer value from a survey necessarily bear any relation to a "price premium," if that amount is intended to represent some portion of the price actually evident in the market. This issue has been addressed in the literature on conjoint analysis. For example, a paper presented jointly by several conjoint practitioners and academics at a conference organized by Sawtooth, the conjoint software provider that Dr. Groehn proposes to use for his survey, states: "In the context of conjoint studies, feature valuation is achieved by using various measures that relate only to the demand for the products and features and not to

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<sup>50</sup> In his deposition, Dr. Groehn admits that competitors' pricing is likely to have an influence on the price of Cree's products, but the damages framework he proposes does not account for the behavior of Cree or its competitors. [Groehn Deposition, p. 97]

the supply.”<sup>51</sup> The authors state that estimates of consumer willingness to pay derived from conjoint surveys “do not take into account equilibrium adjustments in the market as one of the products is enhanced by addition of a feature” (*i.e.*, responses to the feature change by the supplier as well as competitors’ responses) and further that “[c]omputation of changes in the market equilibrium due to feature enhancement of one product will be required to develop a measure of the economic value of the feature.”<sup>52</sup> The authors conclude that estimates based solely on consumer willingness to pay “will overstate the price premium afforded by feature enhancement.”<sup>53</sup>

51. Dr. Groehn does not propose to undertake any such “computation of changes in market equilibrium”—*i.e.*, he does not propose to determine how any change in consumer demand, as measured by his survey, may impact market prices. Indeed, Dr. Groehn’s proposed approach necessarily would overstate any actual impact on prices. By considering only the demand side of the market, his proposed survey cannot provide estimates of objective, market values. Instead, at best it only can provide estimates of consumers’ willingness to pay for a product or feature outside of the bounds of a real-world market.

### **VIII. PLAINTIFF PROVIDES NO EVIDENCE OF ANY PRICE PREMIUM FOR THE ACCUSED CLAIMS AND CREE’S BUSINESS STRATEGY INDICATES THERE WAS NONE**

52. Plaintiff claims that Defendant’s alleged misrepresentations enabled it “to charge a premium for the Products over what it would have been able to charge had it not misled Plaintiff and the Class.”<sup>54</sup> As we describe above, Dr. Groehn explicitly disclaims that his proposed approach would measure this premium. Since he performs no analysis of the “supply side” of the marketplace, the results from his survey alone cannot be used to predict prices in the “but-for” scenario. Thus, Plaintiff has provided neither an estimate of any purported price

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<sup>51</sup> Greg Allenby, Jeff Brazell, John Howell, and Peter Rossi, “Using Conjoint Analysis to Determine the Market Value of Product Features,” in Proceedings of the Sawtooth Software Conference, October 2013, p. 343. These same conclusions have been included in peer-reviewed articles; see, for example, Greg Allenby, Jeff D. Brazell, John R. Howell, and Peter E. Rossi, “Valuation of Patented Product Features,” *The Journal of Law & Economics*, v. 57, n. 3, August 2014, pp. 629-663; and Greg Allenby, Jeff D. Brazell, John R. Howell, and Peter E. Rossi, “Economic Valuation of Product Features,” *Quantitative Marketing and Economics*, v. 12, n. 4, December 2014, pp. 421-456.

<sup>52</sup> Allenby, *et al.* (2013), pp. 346-347.

<sup>53</sup> Allenby, *et al.* (2013), p. 347.

<sup>54</sup> Complaint, ¶ 43.

premium in the market due to the Accused Claims, nor has she even identified any method to determine whether such a premium existed. Nonetheless, given Plaintiff's stated theory of damages as expressed in the Complaint, we have been asked to assess whether the evidence supports a conclusion that members of the putative class did pay a "price premium." To the contrary, we find that the evidence supports a conclusion of *no* price premium due to the Accused Claims.

53. To understand Cree's approach to marketing and pricing its products, we conducted an interview with Scott Schwab, Cree's Vice President and General Manager, Lamps for the period from 2017 through May 2019. Mr. Schwab described the process by which Cree has packaged and priced its LED lightbulb products. First, he described the factors that Cree considers when setting the prices of its products.<sup>55</sup> Those factors include competitors' pricing;<sup>56</sup> Cree's costs to manufacture the products;<sup>57</sup> and negotiations with customers, primarily The Home Depot.<sup>58</sup> In addition, Cree sets its wholesale prices in a manner such that The Home Depot can charge specific "price points," for example prices ending in "\$0.97," and still generate the required margins.<sup>59</sup> Mr. Schwab further described how the Cree personnel who design the product labels and packaging are different from those who are responsible for negotiations with Cree's customers and determining pricing.

54. Based on this information, there is no reason to expect that changes to the specific wording on the packages of Cree's LED lightbulb products would lead to any change in the prices that Cree or the retailers set for the Accused Products. As described above, Cree has used a variety of claims on the labels of its products, which differ across products and have changed over time. We have seen no evidence that Cree ever adjusted its pricing to account for differences in labels between products or changes in labels over time.

55. Internal strategy documents from Cree support this conclusion. For example, an analysis by Cree in late-2013, which included a roadmap for the company's future strategy,

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<sup>55</sup> See also, Schwab Deposition, pp. 28-30.

<sup>56</sup> See also, CREE\_00072985, CREE\_00073022, and CREE\_00073010.

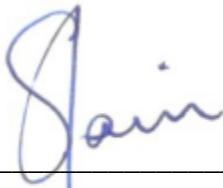
<sup>57</sup> See also, CREE\_00072996 and CREE\_00072997.

<sup>58</sup> See also, CREE\_00073019 and CREE\_00073020.

<sup>59</sup> See also, CREE\_00073019, CREE\_00073020, CREE\_00072996, and CREE\_00072997.

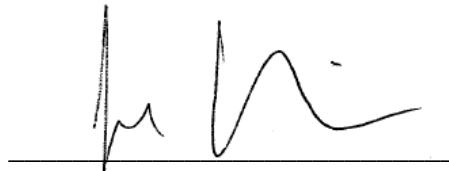
highlighted the fact that customers' primary issue in choosing an LED lightbulb was the desire for a product that "Looks and Works like a Light Bulb" and that, given that characteristic, "price is key" "regardless of payback economics."<sup>60</sup> These characteristics of consumer demand support Cree's strategy, which has not focused on differentiation from the competition related to specific performance claims, but rather has focused on continuing to drop prices to match competitors while reducing costs.<sup>61</sup> In fact, in their presentations of Cree's strategies, these documents do not reference any specific label claims on Cree's packages.

56. Based on this information, we conclude that there is no evidence Cree would have adjusted its prices in the "but-for" world where it could not include the Accused Claims on the labels of the Accused Products; and there is considerable evidence Cree would not have done so. As such, there is no support in the record for any price premium associated with the Accused Claims.



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Sushrut Jain  
April 30, 2021



Jesse David, Ph.D.  
April 30, 2021

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<sup>60</sup> CREE\_00061728 – 750, at 736 – 737 and -739. See also, CREE\_00061752 – 758 at 757 and CREE\_00055006 – 030 at 014 and 018.

<sup>61</sup> CREE \_00061728 – 750, at -740 – 741. See also, CREE\_00073022.

## APPENDIX 1: MATERIALS CONSIDERED

### **Case Documents**

Class Action Complaint, April 9, 2019  
 Opinion and Order, March 20, 2020  
 Deposition of Stephanie Wedra, August 20, 2020  
 Report of Dr. Andreas Groehn, February 26, 2021  
 Memorandum of Law in Support of Plaintiff's Motion for Class Certification, February 26, 2021  
 Deposition of Dr. Andreas Groehn, April 9, 2021  
 Declaration of Scott Schwab, April 30, 2021  
 Declaration of Phil Primato, April 30, 2021

### **Young v. Cree Documents**

Deposition of Jonathan Vollers, October 8, 2018, with Exhibits 1-10 and errata  
 Deposition of Scott Schwab, January 4, 2019, with Exhibits 1-19 and errata

### **Bates Numbered Documents**

CREE_00049110 – 149	CREE_00062461	CREE_00065376 – 379
CREE_00054132 – 136	CREE_00063185 – 224	CREE_00064855
CREE_00054138 – 139	CREE_00064021	CREE_00064858
CREE_00054538 – 563	CREE_00064032	CREE_00064860
CREE_00055005 – 055	CREE_00064034	CREE_00065185
CREE_00055520 – 521	CREE_00064037	CREE_00068569
CREE_00058447 – 448	CREE_00064058	CREE_00070410
CREE_00060645 – 647	CREE_00064719 – 721	CREE_00070633
CREE_00060650	CREE_00064760 – 762	CREE_00072983
CREE_00060653	CREE_00064765 – 766	CREE_00072985
CREE_00060656	CREE_00065183	CREE_00072990
CREE_00060659	CREE_00065188	CREE_00072994
CREE_00060796	CREE_00065190	CREE_00072996 – 999
CREE_00061437	CREE_00065193	CREE_00073001
CREE_00061442	CREE_00065195	CREE_00073010
CREE_00061728	CREE_00065199	CREE_00073019 – 022
CREE_00061751 – 758	CREE_00065201	CREE_00073038
CREE_00062367 – 368	CREE_00065204	CREE_00076072 – 073
CREE_00062405 – 406	CREE_00065206	THD-CREE000001
CREE_00062414	CREE_00065210 – 211	
CREE_00062459	CREE_00065369 – 372	

## **Publicly Available Documents**

Cree 2018 10-K

Daniel Levy, Dongwon Lee, Haipeng (Allan) Chen, Robert J. Kauffman, and Mark Bergen, “Price Points and Price Rigidity,” *The Review of Economics and Statistics*, v. 93, n. 4, November 2011, pp. 1417-1431

Federal Judicial Center, Reference Manual on Scientific Evidence, 3<sup>rd</sup> ed., Washington, D.C.: National Academies Press, 2011

Greg Allenby, Jeff Brazell, John Howell, and Peter Rossi, “Using Conjoint Analysis to Determine the Market Value of Product Features,” in Proceedings of the Sawtooth Software Conference, October 2013

Greg Allenby, Jeff D. Brazell, John R. Howell, and Peter E. Rossi, “Economic Valuation of Product Features,” *Quantitative Marketing and Economics*, v. 12, n. 4, December 2014, pp. 421-456

Greg Allenby, Jeff D. Brazell, John R. Howell, and Peter E. Rossi, “Valuation of Patented Product Features,” *The Journal of Law & Economics*, v. 57, n. 3, August 2014, pp. 629-663

Jean Tirole, The Theory of Industrial Organization, Cambridge, MA: The MIT Press, 1988

Michaela Draganska and Dipak Jain, “Consumer Preferences and Product-Line Pricing Strategies: An Empirical Analysis,” *Marketing Science*, v. 25, n. 2, March 2006, pp. 164-174

## **Websites**

Cree:

[creebulb.com](http://creebulb.com)

[creebulb.com/products](http://creebulb.com/products)

[creebulb.com/40-watt-replacement-soft-white](http://creebulb.com/40-watt-replacement-soft-white)

U.S. Department of Energy:

[www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/how-energy-efficient-light](http://www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/how-energy-efficient-light)

U.S. Federal Trade Commission:

[www.ftc.gov/tips-advice/business-center/guidance/ftc-lighting-facts-label-questions-answers-manufacturers](http://www.ftc.gov/tips-advice/business-center/guidance/ftc-lighting-facts-label-questions-answers-manufacturers)

**APPENDIX 2: CURRICULUM VITAE OF JESSE DAVID, PH.D.**



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### **Jesse David, Ph.D.**

Jesse David is a Partner at Edgeworth Economics and head of Edgeworth's Los Angeles office. Dr. David is an expert on the valuation of intangible assets, market definition, and the assessment of economic impacts in complex commercial disputes and regulatory proceedings. His experience spans intellectual property, antitrust, labor, regulatory, and class certification matters, among other economic issues related to the intersection of business and government.

Dr. David has provided economic consulting and expert testimony for many industries, including pharmaceuticals, telecommunications, agricultural products, finance, petroleum products, chemicals, software, and consumer products. He frequently submits expert reports to and testifies before decision-making bodies, including U.S. federal and state courts, the Federal Energy Regulatory Commission, the National Energy Board of Canada, and various arbitration venues.

Dr. David's consulting practice also includes developing cost-benefit analyses of government regulations and assessing the economic impacts of government policies and other changes in industry structure. Dr. David has prepared studies for entities such as the American Trucking Associations, the National Football League Players Association, the San Diego County Water Authority, the New York Power Authority, and the Ocean Conservancy.

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Stanford University  
Ph.D., Economics, 2000

Brandeis University  
B.A., *magna cum laude*, Economics and Physics, 1991

### **EMPLOYMENT**

Edgeworth Economics, LLC, Washington, D.C.  
2019 - 2020, President  
2012 - 2018 and 2021 - present, Partner  
2009 - 2012, Senior Vice President

Criterion Economics, LLC, Washington, D.C.  
2009, Senior Vice President

National Economic Research Associates, Inc., White Plains, NY  
2004 - 2009 Vice President  
2000 - 2004 Senior Consultant  
1997 - 1999 Senior Analyst

Stanford University, Palo Alto, CA  
1993 - 1995 Research Assistant/Teaching Assistant

## TESTIMONY AND EXPERT REPORTS

- Rigo Amavizca v. Nutra Manufacturing, LLC*, U.S. District Court for the Central District of California; expert report, April 12, 2021; deposition, April 21, 2021
- Lashawn Sharpe, et al. v. A&W Concentrate Company and Keurig Dr Pepper Inc.*, U.S. District Court for the Eastern District of New York; expert report, April 7, 2021
- Daniel Zeiger v. WellPet LLC*, U.S. District Court for the Northern District of California, San Francisco Division; expert report, September 14, 2020; deposition, October 16, 2020
- Silvergate Pharmaceuticals, Inc. v. Amneal Pharmaceuticals LLC*, U.S. District Court for the District of Delaware; expert report, August 21, 2020; deposition, November 16, 2020; trial testimony, February 4, 2021
- Cameron Lundquist and Leeana Lara v. First National Insurance Company of America, et al.*, U.S. District Court for the Western District of Washington; expert report, July 27, 2020; deposition, August 25, 2020
- Winn-Dixie Stores, Inc. and BI-LO Holdings, LLC v. Eastern Mushroom Marketing Cooperative, Inc., et al.*, U.S. District Court for the Eastern District of Pennsylvania; expert report, July 23, 2020; deposition, August 19, 2020; declaration, August 30, 2020
- Elizabeth E. Belin, et al. v. Health Insurance Innovations, Inc., et al.*, U.S. District Court for the Southern District of Florida, Ft. Lauderdale Division; expert report, May 15, 2020; deposition, May 29, 2020
- Kathleen Smith v. Keurig Green Mountain, Inc.*, U.S. District Court for the Northern District of California; declaration, January 31, 2020
- XY, LLC v. Trans Ova Genetics, LC*, U.S. District Court for the District of Colorado; declaration, December 3, 2019
- H&H Wholesale Services, Inc., et al. v. Kamstra International, B.V.*, U.S. District Court for the Eastern District of Michigan, Southern Division – Detroit; preliminary expert report, July 31, 2019
- Jeff Young v. Cree, Inc.*, U.S. District Court for the Northern District of California, San Francisco Division; expert report, March 22, 2019; deposition, April 17, 2019
- Sylvia Leyva v. NFI Industries Inc.*, Superior Court of the State of California for the County of San Bernardino, Central District; deposition, February 15, 2019
- Amphastar Pharmaceuticals, Inc. and International Medication Systems, Ltd. v. Momenta Pharmaceuticals, Inc. and Sandoz, Inc.*, U.S. District Court for the District of Massachusetts; expert reports, December 21, 2018, February 15, 2019, and March 15, 2019; deposition, April 4, 2019
- Entrata, Inc. v. Yardi Systems, Inc.*, U.S. District Court for the District of Utah, Central Division.; expert reports, December 7, 2018 and February 8, 2019; deposition, February 20, 2019
- POET, LLC, et al. v. Nelson Engineering, Inc., et al.*, U.S. District Court for the District of South Dakota, Southern Division; expert reports, September 28, 2018 and November 28, 2018; declaration, March 22, 2019; deposition, January 8, 2019
- Evert Fresh, Inc. v. Housewares America, Inc.*, U.S. District Court for the District of New Jersey; expert reports, June 4, 2018 and July 17, 2018
- Rosa Alvarez v. NBTY, Inc. and Nature's Bounty, Inc.*, U.S. District Court for the Southern District of California; expert report, June 1, 2018; deposition, September 4, 2018
- Bal Seal Engineering, Inc. v. Nelson Products, Inc., et al.*, U.S. District Court for the Central District of California; expert reports, May 7, 2018, June 5, 2018, and October 30, 2019; deposition, July 27, 2018
- XY, LLC, Beckman Coulter, Inc. and Inguran, LLC v. Trans Ova Genetics, LC*, U.S. District Court for the District of Colorado; expert report, April 13, 2018; deposition, June 6, 2018

*Sandra Bond v. Berkshire Bank and Berkshire Hills Bancorp*, U.S. District Court for the District of Massachusetts; expert report, November 21, 2017; deposition, January 16, 2018; affidavit, August 13, 2018

*DSM IP Assets, B.V. and DSM Bio-Based Products & Services, B.V. v. Lallemand Specialties, Inc. and Mascoma LLC*, U.S. District Court for the Western District of Wisconsin; expert report, November 21, 2017; deposition, December 14, 2017; trial testimony, May 11 and 14, 2018; declaration, June 20, 2018

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*American Helios Constructors, LLC v. Shoals Technology Group*, American Arbitration Association; expert report, August 29, 2017

*Rembrandt Enterprises, Inc. v. Eurovo S.r.l.*, U.S. District Court for the Northern District of Iowa; expert report, July 21, 2017

*United Energy Trading, LLC. v. Pacific Gas and Electric Company, et al.*, U.S. District Court for the Northern District of California, San Francisco Division; expert report, May 19, 2017; deposition, September 28, 2017

*Staci Chester, et al. v. TJX Companies, Inc., et al.*, U.S. District Court for the Central District of California, Eastern Division; declaration, April 17, 2017

*Stanley Johnson v. Time Warner Cable, et al.*, U.S. District Court for the District of South Carolina, Columbia Division; declaration, March 24, 2017

*Momenta Pharmaceuticals, Inc. and Sandoz Inc. v. Amphastar Pharmaceuticals, Inc., et al.*, U.S. District Court for the District of Massachusetts; expert report, February 16, 2017; deposition, March 28, 2017; trial testimony, July 18, 2017; declaration, March 20, 2018

*Chad Herron, et al. v. Best Buy Stores, LP*, U.S. District Court for the Eastern District of California; declaration, August 18, 2016; deposition, August 25, 2016

*In Re: AZEK Decking Sales Practices Litigation*, U.S. District Court for the District of New Jersey; declaration, July 25, 2016; deposition, August 17, 2016

*Boston Cab Dispatch, Inc. and EJT Management, Inc. v. Uber Technologies, Inc.*, U.S. District Court for the District of Massachusetts; expert report, May 20, 2016

*In Re: Nest Labs Litigation*, U.S. District Court for the Northern District of California; declaration, April 15, 2016; deposition, May 10, 2016

*The Bakery, LLC, et al. v. Kenneth Pritt and Woodford Transportation, LLC, et al.*, Circuit Court of Greenbrier County, West Virginia; expert reports, March 21, 2016 and May 27, 2016

*In Re: Scotts EZ Seed Litigation*, U.S. District Court for the Southern District of New York; expert report, March 11, 2016; deposition, April 20, 2016

*Digital Recognition Network, Inc. v. Accurate Adjustments, Inc., et al.*, U.S. District Court for the Northern District of Texas, Fort Worth Division; expert reports, January 22, 2016 and February 22, 2016; deposition, February 25, 2016

*American Helios Contractors, LLC v. Bradley Kogan, Precision Renewables, LLC, and 3TAC, LLC*, District Court for Clark County Nevada; expert report, November 13, 2015

*Christopher Lewert v. Boiron, Inc. and Boiron USA, Inc.*, U.S. District Court for the Central District of California; expert report, October 1, 2015; deposition, April 14, 2016

*Wreal, LLC v. Amazon.com, Inc.*, U.S. District Court for the Southern District of Florida, Miami Division; expert report, September 10, 2015; deposition, September 28, 2015

*Novadaq Technologies Inc. v. Karl Storz Endoscopy-America, Inc. and Karl Storz GmbH & Co. KG*, U.S. District Court for the Northern District of California, San Jose Division; expert report, July 28, 2015; declaration, November 10, 2015

*Globus Medical, Inc. v. DePuy Synthes Products, LLC and DePuy Synthes Sales, Inc.*, U.S. District Court for the District of Delaware; expert reports, July 22, 2015 and October 14, 2015; deposition, November 6, 2015

*Broadband iTV, Inc. v. Hawaiian Telcom, Inc., et al.*, U.S. District Court for the District of Hawaii; expert reports, June 30, 2015 and July 28, 2015; declaration, July 10, 2015; deposition, July 29, 2015

*Greater Houston Transportation Company, et al. v. Uber Technologies, Inc. and Lyft Inc.*, U.S. District Court for the Southern District of Texas, Houston Division; expert reports, June 29, 2015 and November 19, 2015; declaration, August 27, 2015; deposition, January 8, 2016

*Crystal Good, et al. v. American Water Works Company, Inc., et al.*, U.S. District Court for the Southern District of West Virginia; expert report, May 22, 2015; deposition, June 12, 2015

*In Re: Processed Egg Products Antitrust Litigation*, U.S. District Court for the Eastern District of Pennsylvania; expert report, March 13, 2015; deposition, May 5, 2015; affidavit, September 8, 2015; hearing testimony, December 16, 2015; trial testimony, May 29, 2018 and December 4, 2019

*Santarus, Inc. and The Curators of the University of Missouri v. Par Pharmaceutical, Inc.*, U.S. District Court for the District of Delaware; expert report, April 21, 2014; deposition, June 12, 2014

*Mylan Technologies, Inc. and Mylan, Inc. v. Zydus Noveltech, Inc., et al.*, Vermont Superior Court, Chittenden Civil Division; expert report, October 2, 2013; deposition, November 19, 2013

*Alcon Pharmaceuticals Ltd. and Alcon Research, Ltd. v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.*, U.S. District Court for the District of Delaware; expert report, June 28, 2013; deposition, July 24, 2013

*Warner Chilcott Company, LLC v. Lupin Ltd. and Lupin Pharmaceuticals, Inc., and Warner Chilcott Company, LLC v. Watson Laboratories, Inc.*, U.S. District Court for the District of New Jersey; expert report, June 12, 2013; deposition, July 11, 2013; trial testimony, October 8, 2013

*In Re: Mushroom Direct Purchaser Antitrust Litigation*, U.S. District Court for the Eastern District of Pennsylvania; expert report, May 15, 2013; deposition, October 25, 2013; hearing testimony, March 24-25, 2015

*Lisy Corp. v. Barry A. Adams, McCormick & Company, Inc. and Mojave Foods Corporation*, Circuit Court for Howard County, Maryland; deposition, May 23, 2012; trial testimony, April 26, 2013

*Dey, L.P. and Dey, Inc. v. Teva Parenteral Medicines, Inc., et al.*, U.S. District Court for the Northern District of West Virginia; expert report, January 13, 2012; deposition, February 7, 2012; trial testimony, August 2, 2013

*Dow Corning Corporation and Hemlock Semiconductor Corporation v. Jie (George) Xiao, et al.*, U.S. District Court for the Eastern District of Michigan, Northern Division; declaration, January 9, 2012; expert report, March 1, 2012

*Riverplace Development, LLC v. Charles Cranford, Esquire and Rogers Towers, P.A.*, Circuit Court, Fourth Judicial Circuit, in and for Duval County, Florida; depositions, October 12, 2011 and December 21, 2011

*Pfizer, Inc., et al. v. Teva Pharmaceuticals USA, Inc. and Teva Pharmaceuticals Industries, Ltd.*, U.S. District Court for the District of Delaware; expert report, June 3, 2011; deposition, July 22, 2011

*Ramona Trombley, et al. v. National City Bank*, U.S. District Court for the District of California; expert report, May 27, 2011; declaration, August 29, 2011

*Rocky Mountain Farmers Union, et al. v. James N. Goldstene*, U.S. District Court for the Eastern District of California; declarations, October 29, 2010 and March 14, 2011

*Investment Technology Group, Inc., et al. v. Liquidnet Holdings, Inc.*, U.S. District Court for the Southern District of New York; expert report, April 12, 2010; deposition, June 2, 2010

*AOB Properties, Ltd. v. Laserspine Institute, LLC, et al.*, U.S. District Court for the Middle District of Florida, Tampa Division; expert report, December 11, 2009

*Glaxo Group Ltd. and SmithKlineBeecham Corporation v. Teva Pharmaceuticals USA, Inc.*, U.S. District Court for the District of Delaware; expert reports, October 15, 2009 and November 3, 2009; declaration, April 9, 2010; deposition, November 3, 2009

*Tyco Healthcare Group LP and Mallinckrodt Inc. v. Pharmaceutical Holdings Corporation, et al.*, U.S. District Court for the District of New Jersey; declaration, July 22, 2009; deposition, July 23, 2009; hearing testimony, July 29, 2009

*ESCO Corporation v. Bradken Resources Pty Ltd*, International Chamber of Commerce, International Court of Arbitration; expert reports, June 15, 2009 and December 21, 2009; arbitration testimony, January 29, 2010

*Schering Corporation and MSP Singapore Company LLC v. Glenmark Pharmaceuticals Inc., USA and Glenmark Pharmaceuticals Ltd.*, U.S. District Court for the District of New Jersey; expert report, May 8, 2009; deposition, June 18, 2009

*Eli Lilly and Company v. Sicor Pharmaceuticals, Inc. and Teva Pharmaceuticals USA, Inc.*, U.S. District Court for the Southern District of Indiana; expert report, February 24, 2009; deposition, March 20, 2009

*Tobacco Technology, Inc. v. Taiga International N.V., et al.*, U.S. District Court for the District of Maryland; expert report, August 21, 2008; deposition, November 25, 2008

*Dow Jones & Company, Inc. v. Ablaise Ltd. and General Inventions Institute A, Inc.*, U.S. District Court for the District of Columbia; expert report, August 20, 2008

*Aspex Eyewear, Inc. and Contour Optik, Inc. v. Clariti Eyewear, Inc.*, U.S. District Court for the Southern District of New York; expert report, June 20, 2008

*Boldstar Technical, LLC and Michael S. Powell v. The Home Depot, Inc. and Industriplex, Inc.*, U.S. District Court for the Southern District of Florida, Fort Lauderdale Division; expert reports, April 25, 2008 and May 30, 2008; deposition, August 29, 2008; trial testimony, February 10-11, 2010

*Novartis Pharmaceuticals Corporation, et al. v. Mylan Pharmaceuticals, Inc. and Mylan Laboratories, Inc.*, U.S. District Court for the District of New Jersey; expert report, March 26, 2008; declaration, October 1, 2008; deposition, October 9, 2008

*Gary W. Ogg and Janice Ogg v. Mediacom LLC*, Circuit Court of Clay County, Missouri in Liberty; expert reports, March 5, 2008 and April 3, 2008; deposition, April 4, 2008; trial testimony, March 13 and 17, 2009

*Source Search Technologies, LLC v. LendingTree, LLC, et al.*, U.S. District Court for the District of New Jersey; expert report, May 1, 2007; deposition, June 21, 2007

*Federal Insurance Company v. InterDigital Communications Corporation, et al.*, JAMS arbitration; deposition, February 27, 2007; arbitration testimony, May 16, 2007

*Student Lifeline, Inc. v. The Senate of the State of New York, et al.*, U.S. District Court for the Eastern District of New York; expert report, January 29, 2007; deposition, July 26, 2007

*Pediatrix Screening, Inc., et al. v. Telechem International, Inc.*, U.S. District Court for the Western District of Pennsylvania; expert reports, December 15, 2006, February 16, 2007, and July 6, 2007; deposition, March 28, 2007; trial testimony, July 18-19, 2007

*Green Mountain Chrysler-Plymouth-Dodge-Jeep, et al. v. Torti*, U.S. District Court for the District of Vermont; expert reports, October 9, 2006 and January 17, 2007

*The Procter & Gamble Company v. Teva Pharmaceuticals USA, Inc.*, U.S. District Court for the District of Delaware; expert report, August 31, 2006; deposition, October 13, 2006; trial testimony, November 6, 2006

*Central Valley Chrysler Jeep, Inc., et al. v. Witherspoon*, U.S. District Court for the Eastern District of California; expert reports, June 12, 2006, October 9, 2006, and January 16, 2007; deposition, October 27, 2006

*Sierra Club, et al. v. Robert B. Flowers, et al.*, U.S. District Court for the Southern District of Florida, Miami Division; depositions, June 6, 2006 and June 20, 2006; hearing testimony, October 5, 2006; declaration in support of appeal, U.S. Court of Appeals for the Eleventh Circuit, July 27, 2007

*Merck & Co., Inc. v. Teva Pharmaceuticals USA, Inc.*, U.S. District Court for the District of Delaware; expert report, April 6, 2006; deposition, August 8, 2006

*Alliance Security Products, Inc. v. Fleming and Company, Pharmaceuticals*, U.S. District Court for the Southern District of New York; expert report, March 30, 2006; deposition, May 17, 2006

*Re Colonial Pipeline Company*, Federal Energy Regulatory Commission; declaration, February 28, 2006

*Tesoro Canada Supply & Distribution Ltd. in Hearing Order MH-2-2005 Regarding an Application for Priority Destination from Chevron Canada Limited, et al.*, National Energy Board of Canada; direct testimony, January 18, 2006

*McKesson Information Solutions, LLC v. The TriZetto Group, Inc.*, U.S. District Court for the District of Delaware; expert report, November 17, 2005; deposition, November 30, 2005

*Touch-n-Buy, Inc. v. Radiant Telecom, Inc., et al.*, U.S. District Court for the Southern District of Florida; expert report, November 9, 2005; deposition, February 8, 2006

*Jamaica Recycling Corp., et al. v. The City of New York, et al.*, Supreme Court of the State of New York, County of New York; affidavit, August 18, 2005

*Amerisource Corporation v. RX USA International, Inc., et al.*, U.S. District Court for the Eastern District of New York; expert report, August 15, 2005; deposition, June 5, 2006

*Ruth S. King v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Supreme Court of the State of New York, County of New York; declaration, August 3, 2005; deposition, September 26, 2005; also in *Rochelle Suchoff, et al. v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Superior Court of New Jersey, Law Division, Essex County; *Jason Gregory Turner v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Superior Court of the State of California for the County of Los Angeles; *Harry Clendenan v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Circuit Court of Kanawha County, West Virginia; *Elizabeth Leser v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Court of Common Pleas, Erie County, Ohio; *Bobby Allen Green v. McNeil Nutritionals, LLC*, Judicial Court, Fourth Judicial Circuit in and for Duval County, Florida, Division CV-A; and *Jacqueline Burrows, et al. v. McNeil Nutritionals LLC and McNeil PPC-Inc.*, Superior Court of Massachusetts, Middlesex County

*Braun GmbH v. Rayovac Corporation*, U.S. District Court for District of Massachusetts; expert reports, May 23, 2005 and June 27, 2005; deposition, September 8, 2005

*PediaMed Pharmaceuticals, Inc. v. Breckenridge Pharmaceutical, Inc. and Scientific Laboratories, Inc.*, U.S. District Court for the District of Maryland, Southern Division; expert report, October 1, 2004

*Forrest W. Garvin and E-Netec, Corp. v. McGuireWoods, LLP, et al.*, General Court of Justice, Superior Court Division for the State of North Carolina, Mecklenburg County; deposition, July 27, 2004

*ResQNet.com, Inc. v. LANSA, Inc.*, U.S. District Court for the Southern District of New York; expert reports, July 14, 2004 and January 25, 2007; depositions, August 9, 2004 and May 6, 2011; trial testimony, May 21, 2007 and June 7, 2011

*Allococo Recycling, Ltd. v. John Doherty*, U.S. District Court for the Southern District of New York; expert report, February 4, 2004; deposition, December 9, 2004; declaration, December 2, 2005

*Pinnacle Systems, Inc. v. XOS Technologies, Inc., et al.*, U.S. District Court for the Northern District of California expert report, November 7, 2003; deposition, January 15, 2004; trial testimony, February 11, 2004

*Sinclair Oil Corporation v. BP Pipelines (North America), Inc.*, Federal Energy Regulatory Commission; direct testimony, September 18, 2003; rebuttal testimony, March 16, 2004.

### **SELECTED CONSULTING PROJECTS AND REPORTS**

*The Impact of EPA's Policies Regarding RVOs and SREs* – white paper submitted as comment on EPA rulemaking; analysis of EPA's policies with respect to the RFS and the impact of those policies on biofuel production and consumption

*Economic Issues Associated with a Change in the RFS Point of Obligation* – analysis of proposals put forward by various petitioners to change the point of obligation for the RFS regulation from refiners/importers to blenders

Calculation of potential exposure related to class action claims for false labeling of retail food product – analysis of retail scanner data and wholesale transaction databases to determine potential price premiums associated with label claims and calculate potential damages related to allegedly false claims

Calculation of potential exposure related class action claims for unpaid wages – analysis of card-swipe, payroll, and scheduling data for a public utility to assess potential damages in a class action claim

*Analysis of EPA's Proposal for a Reduction in the RFS Volume Requirements for 2014* – analysis of EPA's proposal to adjust the volumetric requirements under the RFS

*Economic Impacts of the RFS Program: An Analysis of the NERA Report Submitted to the EPA* – analysis of the findings of NERA and CRA regarding economic impacts of waiving the Clean Air Act requirement for ethanol blending in gasoline

Calculation of potential exposure related class action claims for payroll violations – analysis of login, payroll, and expense report data for financial services firm to assess potential damages in a class action claim

*The Impact of a Waiver of the RFS Mandate on Food/Feed Prices and the Ethanol Industry* – analysis of the impacts of waiving the Clean Air Act requirement for ethanol blending in gasoline on animal feed prices, household expenditures on food, and the ethanol industry

Analysis of generic pharmaceutical company's exposure for a potential at-risk launch – financial analysis of the potential damages against a pharmaceutical company for launching a generic product before patent expiration

Analysis of coal supply contract escalator – report on the expected escalation in various cost indices used to determine the pricing of coal in a contract between a mining company and an electric utility

*Review of PHMSA's Regulatory Analysis for the External Piping Requirement* – analysis of cost-benefit for a proposed regulation on external loading pipes for hazardous materials tankers

*The Economic Impact of a Potential NFL Lockout in 2011* – analysis for the National Football Players Association of the impact of a loss of professional football games to the local economies of host cities

*Review of FMCSA's Regulatory Impact Analysis for the 2010-2011 Hours of Service Rule* – cost-benefit study for the American Trucking Associations on the proposed change in regulations of hours of service for long-haul truckers; testified before Congressional Sub-Committee

Consulting for an electric power cooperative on class certification in a claim for trespass damages – analyzed factors involved in hypothetical negotiations between landowners and a transmission line operator related to value of an easement for telecommunications use

*A Cost-Benefit Analysis of Gear Replacement for Gulf Shrimp Fishermen* – analysis prepared for the Ocean Conservancy on the costs and benefits associated with industry-wide changes in equipment used by shrimp fisherman in the Gulf of Mexico

Analysis of the impacts on competition of a merger in the solid-waste collection industry – prepared databases for turnover to the U.S. Department of Justice in response to a Second Request; prepared economic and statistical analyses of transaction data to address questions of competitive impact of consolidation

*A Review of FMCSA's Regulatory Evaluation for the Proposed Minimum Training Requirements for Entry-Level Commercial Motor Vehicle Operators* – analysis of the U.S. Department of Transportation's proposed regulation regarding the minimum training requirements for truck and bus drivers

Separable Costs–Remaining Benefits calculation for a dam reconstruction project – report on cost allocation for a municipal water district which assessed the relative benefits and costs of recreational and water-supply uses of a reservoir

Peer review for U.S. EPA STAR Grant program – peer review of grant applications to the EPA's National Center for Environmental Research; provided expertise in the areas of environmental economics, statistics, and policy analysis

Evaluation of potential Natural Resource Damage liabilities at current and former aerospace manufacturing sites – estimated the potential costs associated with NRD liabilities at contaminated sites for an aerospace manufacturer, for use in negotiations with insurance carriers

Non-compete valuation for real estate executives – assessment of the value of non-compete agreements for two senior executives at a real estate management firm

Evaluation of Natural Resource Damage liabilities at an operational mining site – report on the potential litigation and regulatory risk associated with environmental damages at an operational mining site, including estimates of cost, probability, and timing

Economic impact report for entertainment-related industry – analysis of the economic impact of an entertainment-related industry on the economies of four states, including the impact of content-generation, distribution, and retail sales on employment, output, and tax revenue

*The Past, Present, and Future Socioeconomic Effects of the Niagara Power Project* – analysis of the economic impact of a hydro-electric facility on the local and regional economies, demographics, industry, and real estate as part of a supplemental environmental impact statement for re-licensing

## PUBLICATIONS

“EPA Enforcement of the Renewable Fuel Standard Program,” *Agriculture and Food Committee Newsletter*, American Bar Association, Section of Antitrust Law, v. 4, n. 1, Fall 2013

“An Economic Perspective on Food Labeling Cases,” in *Intellectual Property Law360*, May 30, 2013

“Empirical Evidence and Class Certification in Labor Market Antitrust Cases,” *25 Antitrust* 1 (2010), co-authored with John Johnson and Paul Torelli

“Economic Approaches to Royalty Calculations,” in *Intellectual Property Law360*, May 25, 2010, co-authored with Kara Gorski

“Intellectual Property Rights in Developing Nations,” research paper for NERA Economic Consulting, prepared for the International Intellectual Property Institute (2008), co-authored with Sourav Chatterjee, Fei Deng, Christian Dippon, and Mario Lopez

“Commercial Success: Economic Principles Applied to Patent Litigation,” in Economic Approaches to Intellectual Property Policy, Litigation, and Management (Gregory K. Leonard & Lauren J. Stiroh, eds. National Economic

Research Associates 2005); also in Economic Damages in Intellectual Property (Daniel Slottje ed., John Wiley & Sons 2006); co-authored with Marion B. Stewart

“Interest and Discount Rates in Intellectual Property Damages,” in Economic Approaches to Intellectual Property Policy, Litigation, and Management (Gregory K. Leonard & Lauren J. Stiroh, eds. National Economic Research Associates 2005), co-authored with Christine Meyer

“Determining Reasonable Compensation for Employee Inventions in Japan,” 6 *Global Intellectual Property Asset Management Report* 9 (2004), co-authored with Satoshi Nakashima

“Where Is the Market Failure? A Review of OSHA’s Economic Analysis for Its Proposed Ergonomics Standard,” 22 *Journal of Labor Research* 75 (2001), co-authored with Mark Berkman

“Water Subsidies in Southern California, Do They Exist and Have They Contributed to Urban Sprawl?” 37 *California Western Law Review* 121 (2000), co-authored with Mark Berkman

“The Welfare Implications of Recycled Newsprint Regulation,” doctoral dissertation, Stanford University (2000).

## PRESENTATIONS

“Proving Market Power in Unilateral Conduct Cases,” webinar for the ABA Section of Antitrust Law, Unilateral Conduct Committee, June 2020

“Classwide Damage Models in Misleading and False Advertising Consumer Class Actions,” Strafford CLE webinar, November 2017

“Hedonic Price Regressions in False Advertising Class Actions,” webinar for The Knowledge Group: *Expert Testimony and Survey Methodology in False Advertising Cases: A 2017 Perspective*, January 2017

“Food & Beverage Class Actions: National Trends, Best Practices, and Emerging Claims,” at Perrin Conference: *Challenges Facing the Food and Beverage Industries in Complex Consumer Litigations*, Chicago, IL, April 2014

“Clone Wars: *Abraham & Veneklasen Joint Venture v. American Quarter Horse Association*,” webinar for the ABA Section of Antitrust Law, Agriculture and Food Committee, March 2014

“Expert Data Analysis in Wage & Hours Class Actions after *Dukes, Comcast, and Brinker*,” at American Conference Institute’s 19<sup>th</sup> National Forum on Wage & Hour Claims and Class Actions, San Francisco, CA, September 2013

“Food Labeling Class Actions: Economic and Legal Perspectives on the Rule 23 Predominance Requirement,” Edgeworth Economics Webinar, June 2013

“Economic Issues in Pharmaceutical Patent Litigation,” at Edgeworth Economics CLE Seminar, Washington, DC, September 2010

“The Evolution of a Complex Damages Report,” at Edgeworth Economics CLE Seminar, Philadelphia, PA, April 2010

“Economists’ Views of Recent Patent Damages Decisions,” at Edgeworth Economics CLE Seminar, Washington, DC, April 2010

“When Does a Damages Expert’s Analysis Cross the Daubert Line?” at the *Judicial Education Program* presented by Northwestern University School of Law, Chicago, IL, February 2009

“Copyright Valuation and Damages Assessment,” at Law Seminars International Conference: *Copyright Law Counseling, Management and Litigation*, Seattle, WA, April 2008

“Trade Secret Valuation and Damages Assessment,” at Lexis-Nexis Conference: *Trade Secret Protection: Realizing Best Practices for Trade Secret Protection*, Shanghai, China, December 2007

“Comparables: The Use and Misuse of Benchmark Royalty Rates for Patent Damages,” at NERA CLE Seminar, San Francisco, CA, January 2007

"When You Get to the Fork in the Road, Take It! Alternative Approaches to Defending your Transaction before the Agencies," at *NERA Antitrust Trade and Regulation Conference*, Santa Fe, NM, July 2006

"The Role of Economic Analysis in Intellectual Property Litigation," at Sonnenschein Nath & Rosenthal CLE Program, Chicago, IL, January 2006; also at *NERA Intellectual Property Roundtable*, Tokyo, Japan, July 2004

"IP/Antitrust Lawsuits: Relevant Markets and Class Actions," at Practising Law Institute Workshop: *Intellectual Property Antitrust 2005*, New York City, June 2005

"The Role of Economics in Complex Business Litigation," at Columbus Bar Association CLE Program, Columbus, OH, December 13, 2004

"Is Bankruptcy the Answer?" at *Asbestos Litigation Conference* sponsored by Glasser LegalWorks, New York, NY, April 2003

The Secondary Impact of Asbestos Liabilities, at U.S. Chamber of Commerce conference: *Understanding Asbestos Litigation: The Genesis, Scope, and Impact*, Washington, D.C., January 2003

"Trends in Intellectual Property Litigation," at Licensing Executives Society conference, San Jose, CA, April 2002

"Environmental Risk and the Bottom Line," at 2001 NAEM *Environmental Management Forum*, San Antonio, TX, October 2001; also at *Financial Executives Summit*, Scottsdale, AZ, May 2001

"Competitive Analysis in the Refined Petroleum Products Pipeline Industry," at *Advanced Workshop in Regulation and Competition; Competitive Change in Network Industries* 14th Annual Western Conference, San Diego, CA, June 2001

**APPENDIX 3: CURRICULUM VITAE OF SUSHRUT JAIN**



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March 2021

**Sushrut Jain**  
**Managing Principal**

Sushrut Jain specializes in the application of economic, financial, statistical, and econometric analyses in the context of expert testimony of corporate litigation. He has nearly twenty years of experience consulting on matters involving intellectual property, antitrust, class certification, employment, false advertising, and commercial litigation issues. In the area of intellectual property, Mr. Jain has worked on a variety of matters analyzing damages resulting from patent, copyright, trade secret, and trademark disputes. His antitrust experience includes the application of economic theory to the analysis of liability and damages in federal price discrimination as well as price-fixing cases.

Mr. Jain's work has covered a number of industries, including pharmaceuticals, consumer technology, semiconductors, retail, media, and the financial services industry. Mr. Jain's non-litigation experience includes developing a proprietary options valuation model and performing valuations of employee stock options for the purposes of client SEC reporting requirements.

**E D U C A T I O N**

Stanford University  
MA, Economics

Ohio Wesleyan University  
BA, Mathematics and Economics

**C U R R E N T E M P L O Y M E N T**

Edgeworth Economics, Pasadena, CA  
August 2013-Present, Managing Principal & Principal Consultant

**E M P L O Y M E N T H I S T O R Y**

Analysis Group, Los Angeles, CA

2006-2013, Associate

Bates White, LLC, San Diego, CA  
2003-2004, Senior Consultant

NERA Economic Consulting, San Francisco, CA  
1999-2003, Consultant

#### E X P E R T W I T N E S S E X P E R I E N C E

*Sarah Smiley v. Winrock International Institute for Agricultural Development* – Submitted Expert Rebuttal Report on damages in a matter involving the wrongful termination of an executive.

*Mirabella v. Vital Pharmaceuticals, Inc.* – Submitted Expert Declaration explaining why the false advertising claim could not be established on a class-wide basis and a Rebuttal Report outlining the flaws in the Plaintiffs' expert's damages analysis.

#### S E L E C T C A S E E X P E R I E N C E

Rebutted opposing expert report on alleged coordinated anticompetitive conduct in a durable goods industry in related price-fixing and securities litigation matters. Provided econometric analysis of industry prices and of the impact of a merger.

Provided analysis and prepared rebuttal report for the defense on class certification issues relating to price-fixing matters in packaged baked goods industry.

Provided analysis and prepared rebuttal report on class certification issues relating to price-fixing allegations in an automotive parts industry.

Evaluated conjoint survey and false advertising damages and prepared an expert rebuttal report in an electrical consumer good industry.

*Janssen Biotech, Inc. v. Celltrion Healthcare Co., Ltd.* – Performed analysis of lost profits and reasonable royalty damages and prepared rebuttal expert report in a patent infringement matter concerning a biologic drug.

*Momenta Pharmaceuticals, Inc. and Sandoz, Inc. v. Amphastar Pharmaceuticals* – Performed analysis of lost profits, price erosion, and reasonable royalty damages and prepared rebuttal expert report in a patent case for a low molecular weight heparin molecule.

*Santarus Inc. et al. v. Par Pharmaceutical Inc.* – Evaluated Plaintiff's lost profits and reasonable royalty damages analysis and helped prepare expert rebuttal report in a matter involving an at-risk entry of a generic drug.

*Intellectual Ventures, LLC v. Sprint Spectrum, L.P.* – Prepared rebuttal testimony to Plaintiff's expert's analysis of reasonable royalty damages related to alleged infringement of several communications technology patents.

*Mirror Worlds v. Apple* – Calculated lost profits and reasonable royalty damages related to alleged patent infringement of data display technology; helped prepare expert testimony.

*Intel v. Broadcom* – Calculated lost profits and reasonable royalty damages related to patent infringement of semiconductor technology in the telecommunications industry, helped prepare expert testimony and rebuttals.

#### SELECT CONSULTING EXPERIENCE

Options Valuation for Client SEC Filings – Created an options valuation model (using MATLAB) based on method that uses Monte Carlo simulation for potential use in employee stock options (ESO) and restricted stock unit (RSU) valuations.

Economic Impact Analysis of Electric Transmission Project – Helped prepare analysis of impact of proposed transmission line construction on state economy and environmental justice on behest of US Department of Energy.

#### PUBLICATIONS AND PRESENTATIONS

- “Class Certification in College Tuition Refund Class Actions,” Bloomberg Law, September 2020.
- “Tuition Refund Class Actions” presentation in an Edgeworth Economics webinar on Pandemic-Related Class Actions: An Economic Perspective, July 2020.
- “Americans households are about to get hit by a devastating wave of bankruptcies,” Business Insider, May 24, 2020.
- “Hedonic Price Regression in False Advertising Class Actions,” CLE International Conference on Food Law: Understanding This Rapidly Evolving Area of the Law, March 17-18, 2016.
- “Getting to Class – An Expert's Eye View of Damages Calculations,” State Bar of California Webinar, October 29, 2015.
- “Using Hedonic Price Analysis in Food Labeling Actions,” in *Law360*, June 8, 2015.
- Evans, Elizabeth, and Jain, Sushrut, “Understanding the Financial Crisis: A Look Back,” Analysis Group White Paper, 2010.
- Contributed to Sullivan, Ryan, “A Holistic Approach to Patent Damages Analysis,” in *Economic Damages in Intellectual Property*, ed. Daniel Slottje (Hoboken, NJ: John Wiley & Sons, 2006).